200500060

No.



TO ALL TO WHOM THESE: PRESENTS SHALL COME:

Ance Seed Testing, Inc.

MUCCONS, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE REGORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW THEREFORE. THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HERS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE HASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE SUGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT OR THE PLANT VARIETY PROTECTION ACT. IN THE UNITED STATES SEED OF THIS VARIETY SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321

BENTGRASS, CREEPING

'Penneagle II'

In Jestimone Microst, I have hereunto set my hand and caused the seal of the Hunt Huristy Frotestion Office to be affixed at the City of Washington, D.C. this fourteenth day of February, in the year two thousand and six.

Altost:

Commissioner Plant Variety Protection Office Agricultural Marketing Service

[Agriculture

S&T-470 (04-03) designed by the Plant Protection Office using Word 2002. (See reverse for instructions and information collection burden statement)

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable (in the sense that it will reproduce an entire plant) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$3,652 (\$432 filling fee and \$3,220 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice.) Partial applications will be held in the PVPO for not more that 90 days, then returned to the applicant as unfiled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. DO NOT use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$432 for issuance of the Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office Telephone: (301) 504-5518 FAX: (301) 504-5291 200500060

Homepage: http://www.ams.usda.gov/science/pvpo/pvp.htm

To avoid conflict with other variety names in use, the application must check the appropriate recognized authority and provide evidence that name has been cleared by the appropriate recognized authority before the Certificate of Protection is issued. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, 10301 Baltimore avenue, Suite 401 NAL Building, Beltsville, MD 20705. Telephone: (301) 504-5682 http://www.ams.usda.gov/lsg/seed.htm.

ITEM

- 19a. Give:
- (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
- (2) the details of subsequent stages of selection and multiplication;
- (3) evidence of uniformity and stability; and
- (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified.
- 19b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
 - (1) identify these varieties and state all differences objectively;
 - (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
 - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 19c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 19d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 19e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
- 20. If "Yes" is specified (seed of this variety be sold by variety name only, as a class of certified seed), the applicant MAY NOT reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
- 23. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
- 24. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.
- 22. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)
- 23. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

 First U.S. sale 11 May 2004.
- 24. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

representative during the

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the applicant/certificate. The fees for filing a change of address; owner's representative; ownership or assignment; or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of Regulations and Rules of Practice.)

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number for this collection of information is (0581-0055). The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, D.C. 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

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Exhibit A

Origin and Breeding History of 'Penneagle II' Creeping Bentgrass

Pure Seed Testing, Inc. (PST), Hubbard, OR, developed and released 'Penneagle II' creeping bentgrass. The breeding project to develop an improved cultivar from 'Penneagle' creeping bentgrass was begun during the fall of 1998.

An isolated 2900-plant Penneagle improvement project nursery was established near Hubbard during the fall of 1998. This nursery was comprised primarily of plants from population EF, which selected for early flowering and maturity. Also in this nursery were plants selected from various populations from PST's creeping bentgrass breeding program. Planted throughout this nursery were Penneagle plants selected from a field near Canby, OR. These plants were healthy, bright green and had a high number of reproductive tillers. Each of these 40 Penneagle plants was divided vegetatively into 10 propagules and planted in rows throughout the 2900-plant nursery.

During the spring of 1999, 55 attractive plants were selected from the nursery described above. These plants were moved prior to anthesis into an isolated polycross, designated OPN, near Hubbard. The plants were allowed to interpollinate and seed was subsequently harvested from 52 plants, 23 of which traced maternally to Penneagle.

During the summer of 1999, 41 bright green, healthy plants from the Penneagle improvement project nursery described above were selected after pollination. These plants all were from the EF population and had been pollinated by the Penneagle plants. They were designated PEF. Seed was harvested from each plant and used to establish progeny turf plots in Oregon and New Jersey.

An additional 29 plants from other PST sources that had been pollinated by the Penneagle plants were selected after pollination and seed was harvested from each plant.

This seed was used to establish progeny turf evaluation plots in Oregon and New Jersey.

These plants were designated POBR, POV, POVCB and PPEB.

During the fall of 2000, an isolated 2550-plant nursery was established near Hubbard. This nursery was comprised of plants that had been dug from Oregon progeny turf plots that had shown good turf performance from OPN (68%), PEF (12%), POVS (12%), POVCB (4%) and OE (4%). During the spring of 2001, plants were removed from this nursery to increase uniformity of plant type and maturity. Selection criteria for remaining plants were bright green color, low growth habit, medium to fine leaf texture, no visible disease symptoms and a high percentage of reproductive tillers. Remaining plants were allowed to interpollinate and seed was subsequently harvested from 881 plants to produce the first Breeder seed of Penneagle II during the summer of 2001.

The plants that produced the Breeder seed of Penneagle II traced their origins to the following sources: 53% to PST-OPN, of which 44% traced maternally to Penneagle; 23.5% to 'PennLinks' pollinated by Penneagle; 8.5% to Penneagle; 8.5% to Penneagle; 8.5% to Penneagle; 3.5% to 'Penn A-1' pollinated by Penneagle and 3% to 'Seaside II' pollinated by Penneagle.

Seed propagation of Penneagle II is limited to two generations of increase from Breeder seed: one each of Foundation and Certified. Pure Seed Testing, Inc. maintains Breeder seed in Oregon. Penneagle II has shown stability and uniformity through the Certified seed generation. No off-types or variants have been observed in the reproduction or multiplication of Penneagle II creeping bentgrass.

Exhibit B Revised August 2005 Statement of Distinctness for 'Penneagle II' Creeping Bentgrass

'Penneagle II' is most similar to 'Penneagle' and 'PennLinks' creeping bentgrass. Penneagle II and Penneagle differ in the following characteristics:

- 1. Penneagle II has a mean mature plant height at least 12.1 cm shorter than Penneagle (Tables 1, 2).
- 2. Penneagle II has a mean unstraightened plant height at least 8.5 cm shorter than Penneagle (Tables 1, 2).
- 3. Penneagle II has a mean panicle length from tip to bottom branch at least 1.1 cm shorter than Penneagle (Tables 1, 2).
- 4. Penneagle II has a mean internode length at least 1.8 cm shorter than Penneagle (Tables 1, 2).
- 5. Penneagle II has a mean subtending leaf ligule length at least 0.4 mm shorter than Penneagle (Tables 1, 2).

Penneagle II can be distinguished from 'PennLinks' by the following characteristics:

- 1. Penneagle II has a mean mature plant height at least 8.6 cm shorter than PennLinks (Tables 1, 2).
- 2. Penneagle II has a mean unstraightened plant height at least 5.8 cm shorter than PennLinks (Tables 1, 2).
- 3. Penneagle II has a mean panicle length from tip to bottom branch at least 0.9 cm shorter than PennLinks (Tables 1, 3).
- 4. Penneagle II has a mean internode length at least 2.4 cm shorter than PennLinks (Tables 1, 2).
- 5. Penneagle II has a mean subtending leaf ligule length at least 0.5 mm shorter than PennLinks (Tables 1, 2).
- 6. Penneagle II has a mean flag leaf length at least 1.5 cm shorter than PennLinks (Tables 1, 2).
- 7. Penneagle II has a mean flag leaf ligule length at least 0.4 mm shorter than PennLinks (Tables 1, 2).

Penneagle II can be distinguished from 'PennLinks II' by the following characteristics:

- 1. Penneagle II has a mean unstraightened plant height at least 3.5 cm taller than PennLinks II (Tables 10, 11).
- 2. Penneagle II has a mean flag leaf width at least 0.4 mm wider than PennLinks (Tables 10, 12).

Table 1. 2002 mean morphological measurements for entries in a creeping bentgrass seed yield trial seeded fall of 2001 near Hubbard, OR.

Entry	Plant Height (cm)	Unstraightened Plant Height (cm)	Panicle Tip to Bottom Branch (cm)	Panicle Length (cm)	Internode Length (cm)	Subtending Leaf Ligule Length (mm)	Flag Leaf Ligule Length (mm)	Flag Leaf Length (cm)	Flag Leaf Width (mm)	Whorls/ Panicle (#)
nneagle	66.4	47.3	11.2	35.8	0.6	හ හ	3.2	5.5	4.5	7.7
nnLinks	61.3	48.0	10.5	33.1	9.7	3.0	2.8	5.6	3.9	7.0
Penneagle II	52.7	38.8	8.5	30.0	6.7	2.3	2.3	4.1	3.9	7.7
LSD (0.05)	2.8	2.3	0.7	1.7	0.7	0.3	0.3	0.5	0.3	9.0

Table 2. 2003 mean morphological measurements for entries in a creeping bentgrass seed yield trial seeded fall of 2001 near Hubbard, OR.

			Panicle				Subtending	Flag		
		Unstraightened	Tip to			Subtending	Leaf	Leaf	Flag	
	Plant	Plant	Bottom	Panicle	Internode	Leaf	Ligule	Ligule	Leaf	Whorls/
	Height	Height	Branch	Length	Length	Length	Length	Length	Length	Panicle
Entry	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(mm)	(mm)	(cm)	(#)
10000000					:					
Penneagle	61.7	58.8	8.7	26.3	10.7	6.9	2.5	2.3	4 .8	6.7
)	. (. (. (*	C	Ċ	0	7.4
PennLinks	58.2	55.4	χ Ω.	24.4	10.4 4.0	œ œ	۷.۶	ν.	0.0	
Penneagle II	49.6	49.6	7.6	24.0	6. 8	6.2	2.1	2.2	4.3	6.7
9	5									i
180 0/ 081	7.7		9	2.4	8	9.0	0.3	0.3	0.5	0.5
LSD (0.03)	ţ	-	2	į	2	?	2		· .	

Table 10. 2005 mean morphological measurements for entries in a bentgrass seed yield trial seeded fall of 2003 near Hubbard, OR.

Entry	Unstraightened Plant Height (cm)	Flag Leaf Width (mm)
Penneagle II	41.7	2.4
PennLinks II	38.2	1.8
LSD (0.05)	2.9	0.3

Table 11. 2003 mean unstraightened plant heights for entries in a creeping bentgrass seed yield trial seeded fall of 2001 near Hubbard, OR.

	Unstraightened Plant Height
Entry	(cm)
Penneagle II	49.6
PennLinks II	43.5
LSD (0.05)	3.1

Table 12. 2002 mean flag leaf widths for entries in a creeping bentgrass seed yield trial seeded fall of 2001 near Hubbard, OR.

Entry	Flag Leaf Width (mm)
Penneagle II	3.9
PennLinks II	3.5
LSD (0.05)	0.3

REPRODUCE LOCALLY. Include form number and date on all reproductions

Form Approved OMB NO 0581-0055

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U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY **PLANT VARIETY PROTECTION OFFICE** BELTSVILLE, MD 20705

200500060

Exhibit C

ID JECTIVE DESCRIPTION OF VARIETY

Ot	Bentgrass (<i>Agrostis</i> spp.)	KIETT
NAME OF APPLICANT (S) Pure Seed Testing, Inc.	TEMPORARY OR EXPERIMENTAL DESIGNATION PST-OPN	VARIETY NAME Penneagle II
ADDRESS (Street and No. or RD No., City, State, Zip Code and Country) PO Box 449		FOR OFFICIAL USE ONLY PVPO NUMBER
Hubbard, OR 97032		200500060
PLEASE READ ALL INSTRUCTIONS CAREFULLY		
Place the appropriate number that describes the varied Descriptions of the characters should represent those Give additional description for all characteristics that of	that are typical for the variety. Ranges may be give	en also. Measured data should be for SPACE PLANTS. Append all pertinent comparative trial and evaluation data.
		= Penncross
1. SPECIES: 1 = Colonial (Browntop) A. tenuis 4 = Brown Bent A. canina spp montant 2. ADAPTATION: (0 = Not Tested, 1 = Not Adapted, Northeast 2 Southeast	2 = Adapted)	3 = Velvet A. Canina spp canina cific Northwest
5 = Other (Specify)		
3. MATURITY: (At First Anthesis) Use Comparison \ Days Earlier Than Maturity the Same As Days Later Than	Comparison Variety 8 Comparison Variety Comparison Variety	
4. HEIGHT: (Average of Longest 10 Shoots from Soi 4 9 6 cm Height (at Maturity) 12.	Surface to Top of Head) 1 cm Shorter Than Height the Same as cm Taller Than	8 Comparison Variety Comparison Variety Comparison Variety
5. GROWTH HABIT: Will send addendum % Prostrate 60%	Decumbent % Geniculate	MErect RAD 8 36/

6. VEGETATIVE REPRODUCTION:	
Rhizomes: 1 1 = Absent 2 = Present	and the second s
Stolons: 2 1 = Absent 2 = Present	
0 0 0 % Rhizomes 1 0 0 % Stolons	200500060
7. LEAF BLADE:	
5 3 = Green (Exeter) 5 = Bluish Green (Highland)	2 = Light Green (Washington 4 = Dark Green (Kingstown, Tracenta) 6 = Other (Please Specify)
	2 = Fine (Exeter) 4 = Medium (Seaside) 6 = Coarse (Vermont)
Stornatal Density of Upper Leaf Surface Not taken	
Lower Surface 1 0 0 % Smooth	% Rough
Upper Surface: 1 0 0 % Smooth	% Rough
Margins: 1 0 0 % Smooth 1 7 mm Width (Average of 10) 0 2 mm Narrower Than	% Rough 8 Comparison Variety
Width Same as	
mm Wider Than	
3 . 9 mm Width (Flag Leaves) 4 . 3 cm Length (Flag Leave	es)
8. LEAF SHEATH:	
	Red Sheaths
9. LIGULE: (Lower and Middle Leaves)	
Shape at Apex: % Acute % Rounded	1 0 0 % Truncate
% Other (Please Specify)	240 8126105
	nt Will send Addendum PAD 8/36/05
Margins: 100 % Entire	
2 1 mm Length	
10. LEMMA:	
	Ovate
	Elliptic
	Other (Please Specify)
. 45 mm Width 1 2 mm Length (Exclusive	of awn)
	Silvery
% Other (Please Specify)	
Surface: 1 0 0 % Glossy %	Duli
Texture: % Smooth %	Punctate
Pubescence: 1 0 0 % Glabrous %	Sparce
% Copious	

10. LEMMA: (continued)							
Basal Hairs: 1 0 0	% Absent	<u> </u>	% Few				
	% Many		% Short	6	daa =		A A
	% Long		% Apressed	0	CVVZ	000	60
	% Ascending		% Spreading				
Awns: 1 0 0	% Absent		% Few				
	% Many		% Awn-pointed				
	% Short		% Long			٠	
	% Straight		% Geniculate				
Awn Insertion	% Basal		% Middle				
On Lemma:	% Distal						
	, to comp						
11. PANICLE:	·						
Type: 1 0 0 (in Anthesis):	% Open		% Compact				
Anthocyanin:	% Absent	9 0	% Present				
Branches in	% Appressed		% Ascending				
Anthesis:	% Spreading		,				
Branches in 1 0 0	% Appressed		% Ascending				
Fruit:	% Spreading						
Branch Surface:	% Smooth	00	% Scabrous				
12. SEED:							
0 0749 Grams per 1000 s	seeds						
13. SPRING GREEN UP:							
2 1 = Early (Exeter)	2 = Medium (Astoria)	3 = Late	(Kingstown)				
14. ENVIRONMENTAL RESISTANC				7			
3 Cold 3 Heat	2 Drought	2 Sha	ade	Other (Please Sp	ecify)		
15. DISEASE RESISTANCE: (0=Not	Tested 1=Susceptible 2=Par	tial resista	ance 3=Tolerant 4:	=Resistant)			
0 Red Leaf Spot (Drechsler		. 2		n Leaf Spot (<i>Bipolar</i>	is sorokiniar	na)	
0 Melting Out (Drechslera p	ooae (Helminthosporium vagans)) 2	Dollar Spot (Sclei	rotinia homeocarpa)			
2 Pythium Blight (<i>P. aphan</i> i		0	Pythium Blight (P	. ultimum)			
0 Fusarium Blight (F. roseu		0	Fusarium Blight (F. tricinctum)			
2 Fusarium Patch (Pink Sn		3	Powdery Mildew	(Ersiphe graminis)			
0 Ophiobolus Patch (O. gra		3	Stripe Smut (Usila				
3 Copper Spot (Gloeocerco		0		now Scald) (T. inca	rnata)		
0 Red Thread (Corticium fu		2	Brown Patch (Rh				
0 Stem Rust (Puccinia gran		0	Crown Rust (P. c				
2 Leaf Rust (P. poae-nemo				ecify)			·
			•				

16.	I <u>NSE</u> C	TRESISTANCE: (0=Not Tested 1=Susceptible 2=Partial re	sistan	ce 3=Tolerant 4=Resistant)					
	0	European Chafer (Amphimallon solstitalis)	0	Garden Chafer (Phyllopertha horticola)	Ŋ	005	A	AA	60
	0	Chinch Bug (Blissus insularis)	2	Webworm (Crambus spp.)		VV)	U	W W	W W
	2	Armyworm (Cutworm) (Pseudoletia unipuncta)		Other (Please Specify)					

17. GIVE VARIETY(S) THAT MOST CLOSELY RESEMBLE THE SUBITTED VARIETY: For the following characteristics indicate the degree of resemblance (D.R.) with one of the following numbers: 1 = submitted variety is less than, lighter, or inferior to similar variety, 2 = Same as, 3 = More than, darker or superior, etc

CHARACTER	VARIETY		CHARACTER	VARIETY	
Growth Habit	Penneagle	1	Leaf Color	Penneagle	2
Awn Length	Penneagle	3	Panicle Type	Penneagle	2
Seed Weight	Penneagle	1	Turf Fineness	Penneagle	2
Cold Resistance	Penneagle	2	Heat Resistance	Penneagle	2
Drought Resistance	Penneagle	3	Shade Resistance	Penneagle	2
Brown Patch	Penneagle	2			

18. COMMENTS:

Exhibit D

Additional Description of 'Penneagle II' Creeping Bentgrass

 Penneagle II has shown acceptable turf quality and good disease resistance in turf trials in Oregon (Tables 4, 5), North Carolina (Tables 6, 7) and New Jersey (Table 8). Table 3. Mean initial heading dates for entries in a creeping bentgrass seed yield trial seeded fall of 2001 near Hubbard, OR.

Entry	2002	2003
Independence	08 June	10 June
PennLinks	07 June	07 June
Penneagle	07 June	06 June
Penneagle II	05 June	06 June
Seaside II	31 May	02 June
LSD (0.05)	4 days	4 days

Table 4. 2003 mean Pythium blight and turf quality ratings for entries in a creeping bentgrass turf trial seeded fall of 2002 near Hubbard, OR and maintained at 0.130" mowing height.

	Pythium		Tı	urf Quality		
Entry	Blight	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Mean
OT 055	6.7 ¹	5.3 ²	6.3	5.7	7.7	6.3
PST-OEB		1				5.8
Penn A-4	5.0	4.8	5.8	5.7	7.0	
Penneagle II	6.3	5.5	5.2	6.0	5.7	5.6
Penneagle	4.7	4.3	5.2	5.7	6.7	5.5
PennLinks	5.0	4.7	5.2	5.0	6.7	5.4
Penncross	3.7	4.0	5.2	5.3	6.3	5.2
Seaside II	3.3	3.5	4.0	5.3	6.7	4.9
LSD (0.05)	1.1	1.2	1.1	1.3	1.5	8.0

¹9 = no disease; ²9 = ideal

Table 5. Mean turf quality ratings for entries in a creeping bentgrass turf trial seeded fall of 2001 near Hubbard, OR and maintained at 0.5" mowing height.

Entry	2002	2003	Mean
	0.01	5 0	F 0
PST-OEB	6.0 ¹	5.2	5.6
Penneagle II	5.6	4.9	5.3
Penncross	4.8	5.3	5.0
Seaside II	4.7	5.1	4.9
Penneagle	4.7	4.9	4.8
PennLinks	4.7	4.8	4.8
Penn A-4	4.7	4.7	4.7
Providence	4.0	4.8	4.4
LSD (0.05)	0.6	0.6	0.5

¹9 = ideal

Table 6. Mean brown patch, copper spot and turf quality ratings for entries in a bentgrass turf trial seeded fall of 2001 near Rolesville, NC and maintained at 0.130" mowing height.

· · · · · · · · · · · · · · · · · · ·	Brown Patch			Copper Spot	Turf Quality		
Entry	2002	2003	Mean	2002	2002	2003	Mean
D A 4	7.0 ¹	4.3	5.7	6.3 ¹	5.9 ²	6.5	6.2
Penn A-4				7.3	4.6	5.2	4.9
Penneagle	6.0	3.8	4.9	6.3	4.8	4.3	4.5
Seaside II	5.3	2.8	4.1		4.3	4.1	4.2
Penneagle II	6.7	4.0	5.3	7.7		4.2	4.1
PennLinks	6.0	4.6	5.3	7.0	3.9		
Penncross	5.7	4.2	4.9	8.3	3.8	4.0	3.9
LSD (0.05)	1.9	1.2	1.2	1.8	0.9	0.9	8.0

¹9 = no disease; ²9 = ideal

Table 7. 2003 mean dollar spot, brown patch and turf quality ratings for entries in a creeping bentgrass turf trial seeded fall of 2002 near Rolesville, NC and maintained at 0.5" mowing height.

Entry	Dollar Spot	Brown Patch	Jan-Mar	T Apr-Jun	urf Quality Jul-Sep	Oct-Dec	Mean
Enuy	Opor	- I debii	-				
Penn A-1	5.8 ¹	7.0 ¹	4.7 ²	6.3	4.7	2.0	4.4
Penneagle II	4.7	7.7	4.7	6.1	3.7	2.3	4.2
Penneagle	3.7	6.0	5.0	5.5	4.0	2.0	4.1
PennLinks	5.0	6.0	5.0	5.1	3.7	2.7	4.1
Penn A-4	3.5	7.3	5.0	5.5	3.3	1.7	3.9
Seaside II	4.2	6.0	5.3	4.7	3.7	2.0	3.9
Penncross	3.7	4.7	5.2	4.7	3.0	2.3	3.8
SR 1119	2.5	8.0	4.7	5.2	2.3	3.0	3.8
LSD (0.05)	1.4	2.4	1.1	8.0	1.4	1.5	0.6
= no disease; ² 9 =	ideal	•	•				

Table 8. Performance of creeping bentgrass cultivars and selections in a putting green trial seeded in September 2001 at North Brunswick, NJ.

Entry	Turf Quality 2002 Avg	Est. Sep 2001	Pink Snow Mold 2001 Avg	Dollar Spot 2002 Avg	Brown Patcl 2002 Avg
0052	7.6 ¹	4.3 ²	7.23	6.8 ³	5.8 ³
C953	5.7	6.3	7.5	6.8	6.3
Penneagle II Penn A-4	5.5	8.7	8.2	5.0	5.3
	4.2	8.7	7.2	6.8	5.4
Penneagle Seaside II	4.0	8.7	7.5	7.6	5.5
PennLinks	3.7	8.0	7.7	7.6	6.2
Penncross	3.0	8.0	7.7	7.8	6.6°
Pick CB6.94.01	2.8	6.0	6.5	8.0	7.6
LSD (0.05) : ideal; ² 9 = 100%	0.7	1.4	1.4	1.4	1.3

Table 9. 2003 mean germination rates 14 and 30 days after seeding (DAS) bentgrass entries at 0 or 8000 ppm NaCl in a greenhouse water bath trial in Rolesville, NC.

Entry	% Germ Control	14 DAS % Germ Salt	Difference	% Germ Control	30 DAS % Germ Salt	Difference
D A 4	27	52	25	27	73	46
Penn A-1	35	15	-20	42	49	7
Penneagle II		19	-21	40	38	-2
Penncross	40		-21	68	57	-11
Penn A-4	58	36	-22 -1	64	51	-13
Seaside	2	1		72	53	-19
Seaside II	61	19	-42		36	-13 -27
Penneagle	51	20	-31	63		
PennLinks	62	16	-46	72	38	-34
SR 1119	71	38	-33	61_	25	-36
LSD (0.05)	22.7	21.0	27.5	28.6	18.9	32.3

REPRODUCE LOCALLY. Include form number and date on all reproductions.	FOR	M APPROVED - OMB NO. 0581-0055
U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE EXHIBIT E STATEMENT OF THE BASIS OF OWNERSHIP		etermine if a plant variety protection S.C. 2421). Information is held (7 U.S.C. 2426).
1. NAME OF APPLICANT(S)	TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
Pure Seed Testing, Inc.	PST-OPN	Penneagle II
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)	5. TELEPHONE (include area code)	6. FAX (include area code)
PO Box 449 Hubbard, OR 97032	503-263-0719	503-263-0703
	7. PVPO NUMBER 200	500060
8. Does the applicant own all rights to the variety? Mark an "X" in appropriate bi	ock. If no, please explain. 🛚 YES	□NO
9. Is the applicant (individual or company) a U.S. national or U.S. based company	? If no, give name of country.	⊠ YES □ NO
10. Is the applicant the original owner? ✓ YES ✓ NO If no, pleas	e answer one of the following:	
a. If original rights to variety were owned by individual(s), is (are) the original		
	name of country	
b. If original rights to variety were owned by a company(ies), is (are) the original	•	'
_	name of country	
11. Additional explanation on ownership. (Trace ownership from original breeder to	current owner. Use the reverse for ext	ra space If needed):
Pure Seed Testing, Inc. has licensed Penneagle II to the Per	nncross Bentgrass Growers A	ssociation.
PLEASE NOTE:		
Plant variety protection can only be afforded to the owners (not licensees) who mee	et the following criteria:	
 If the rights to the variety are owned by the original breeder, that person must country which affords similar protection to nationals of the U.S. for the same get 	st be a U.S. national, national of a UF enus and species.	OV member country, or national of a
2. If the rights to the variety are owned by the company which employed the orig UPOV member country, or owned by nationals of a country which affords similar	ginal breeder(s), the company must be ar protection to nationals of the U.S. for	U.S. based, owned by nationals of a the same genus and species.
3 If the applicant is an owner who is not the original owner, both the original owner	er and the applicant must meet one of the	ne above criteria.
The original breeder/owner may be the individual or company who directed the final definitions.	I breeding. See Section 41(a)(2) of the	Plant Variety Protection Act for
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To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Buildin and TDD). USDA is an equal opportunity provider and employer.	ng, 14 th and Independence Avenue, SW, Washingto	n, D.C. 20250-9410 or call (202) 720-5964 (voice

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